**Higher Product Design**

**Homework 8**

**Plastic Processes 2**

1. A plastic bottle and lid for use on a bicycle is shown below.



The bottle was manufactured by the process of blow moulding and the lid components were manufactured by the process of injection moulding.

1. Justify why **each** of these two processes was used to manufacture theses components.

**4 marks**

1. State and justify a plastic that could be used for the bottle or cap **2 marks**



The bottle is held onto a bicycle frame in the bottle cage shown below.

1. Describe the issues that the designer would have to consider when designing the bottle cage**. 2 marks**

**Total Marks 8 marks**

1. The camera shown has been manufactured for a well known company. The casing of the camera has been made by injection moulding ABS plastic.

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1. Describe two benefits of using this process to manufacture the camera casing. **2 marks**
2. Give two characteristics of ABS that make it a suitable material for the camera casing **2 marks**

 **Total Marks 4 marks**

1. Vacuum forming and injection moulding processes were used to manufacture the containers shown below.



1. Explain why these processes are suitable for each container shown.

**4 marks**

1. What visual evidence would indicate whether a product had been injection moulded or vacuum formed? **2 marks**
2. State a suitable plastic for each process. **2 marks**

**Total Marks 8 marks**